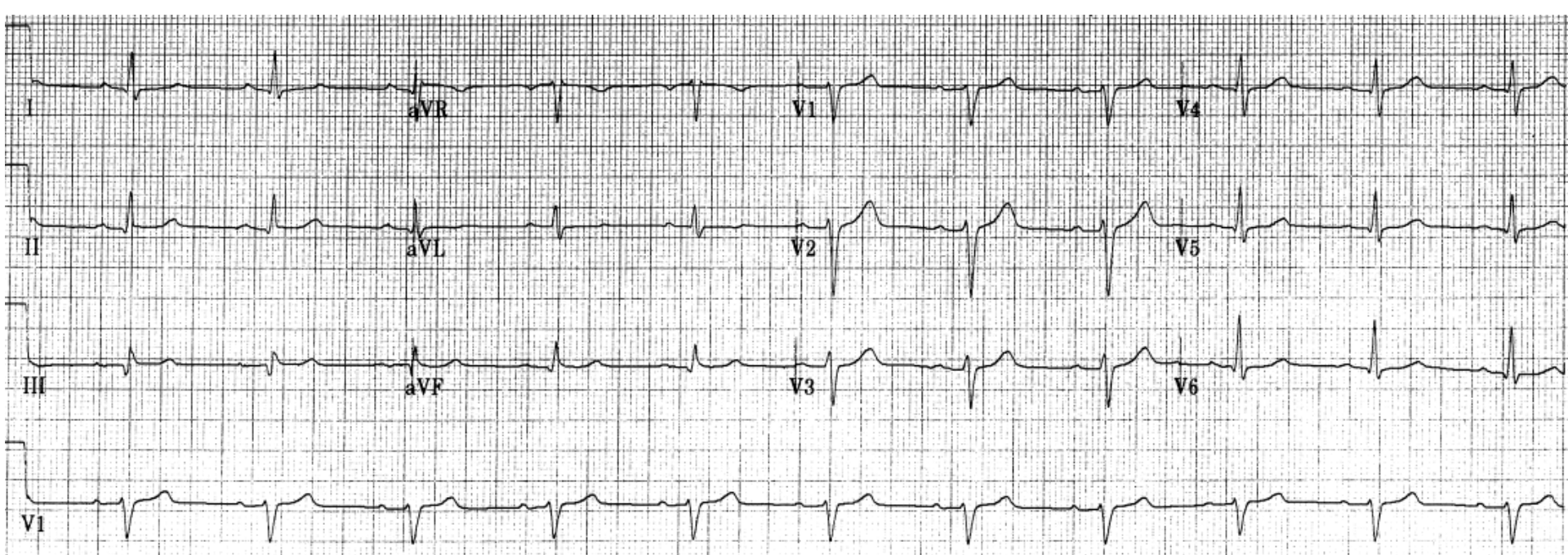


ECG 1



This ECG is read as normal by the computer



Abnormal Q (wide, >1 small box)

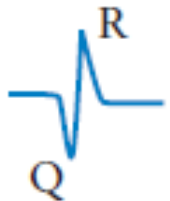


Q wave that is part of a QR or QRS complex is abnormal if:

***wide > 1 small box**

*or if present in V1-V3 to the right of the transition zone, regardless of how small it is

Exception: Wide Q may be normally seen in leads III or aVL in an isolated fashion



Abnormal Q

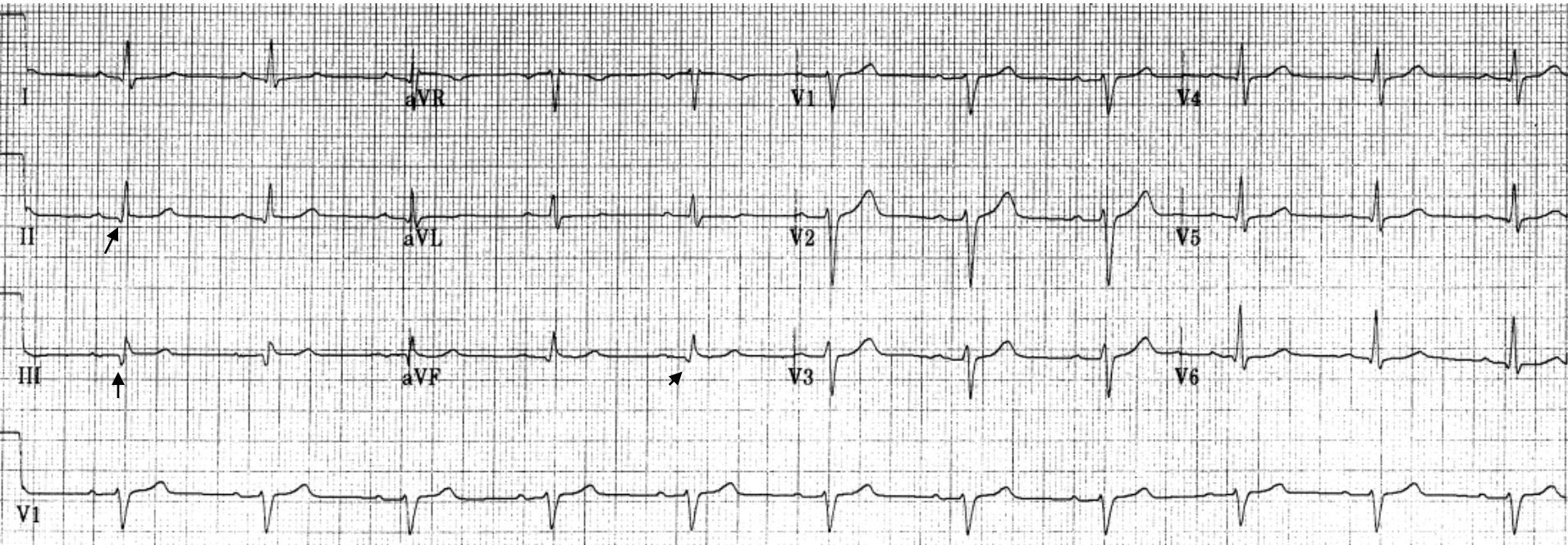


Deep QS wave (no R)



QS pattern is abnormal in all leads except III, and leads V1 +/- V2

ECG 1



On this ECG, there is an abnormal Q in II, III, aVF diagnostic and specific for an inferior infarct of indeterminate age

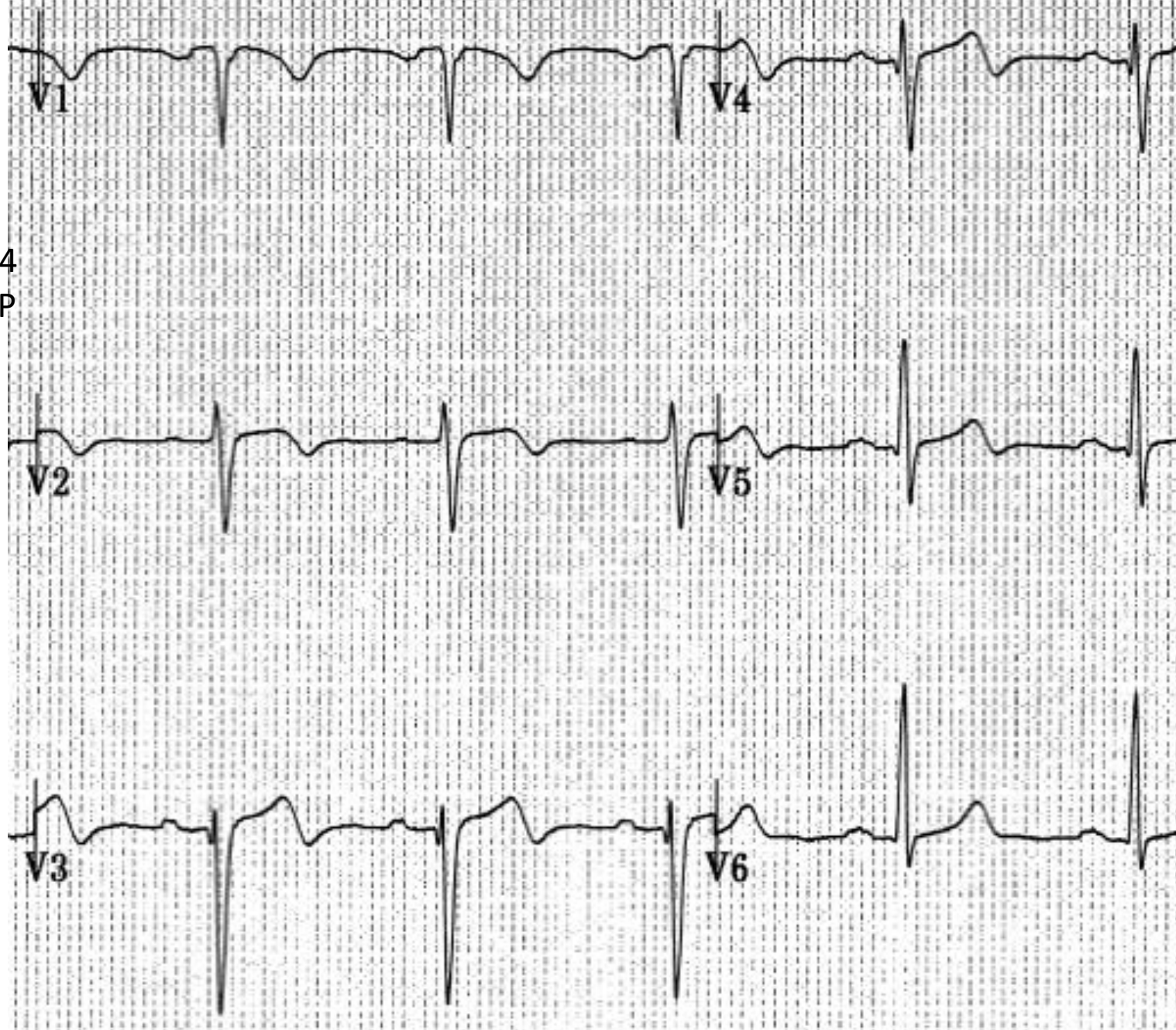
Although Q is not deep, it is wide > 1 box, signifying a pathological Q.

Had the wide Q been isolated in lead III, this ECG would be considered normal

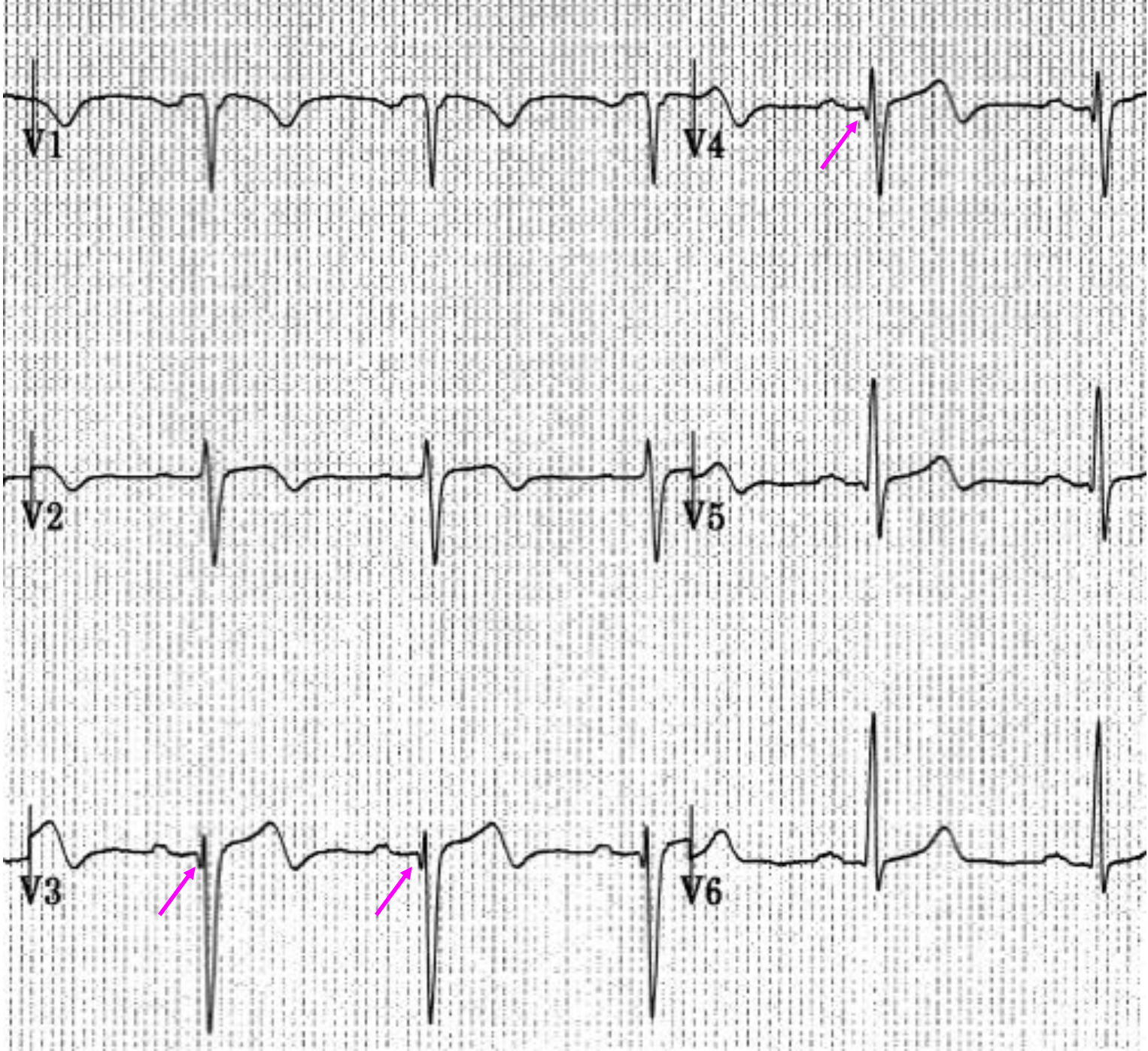
Echo confirmed the old inferior infarct

ECG 2

56 yom,
presents 14
hrs after CP
onset.

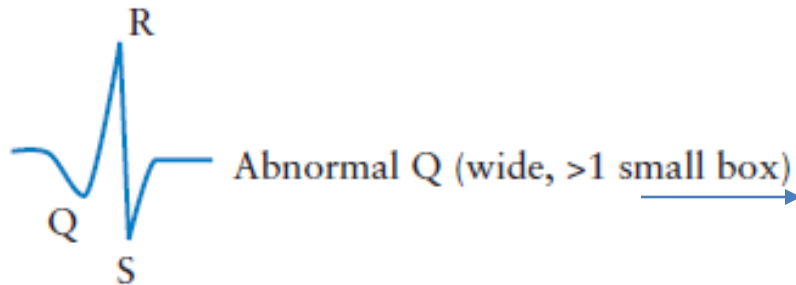


ECG 2



ECG 2 shows minimal residual ST elevation with a narrow tiny q in leads V3-V4 and post-ischemic T-wave abnormality (not true Wellens since there are Qs). **Q wave of any size, when seen in the precordial leads before the transition zone as part of a qrS complex (i.e.,qrS before the transition zone), is abnormal Q and is 100% indicative of MI.**

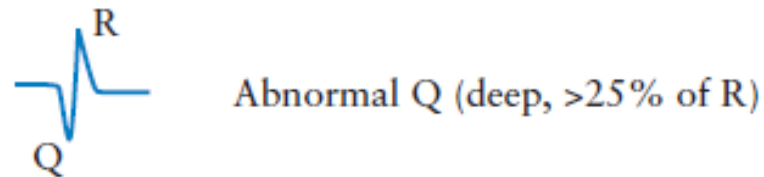
This is basically late STEMI presentation at a time where ST elevation is resolving and Q waves/T inversion appeared.



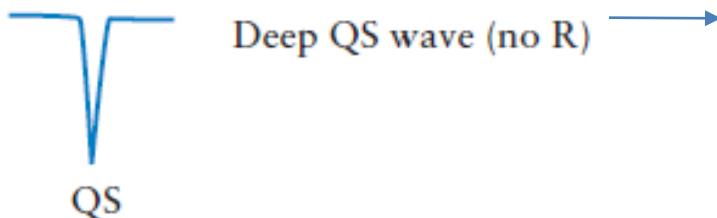
Q wave that is part of a QR or QRS complex is abnormal if:

*wide > 1 small box

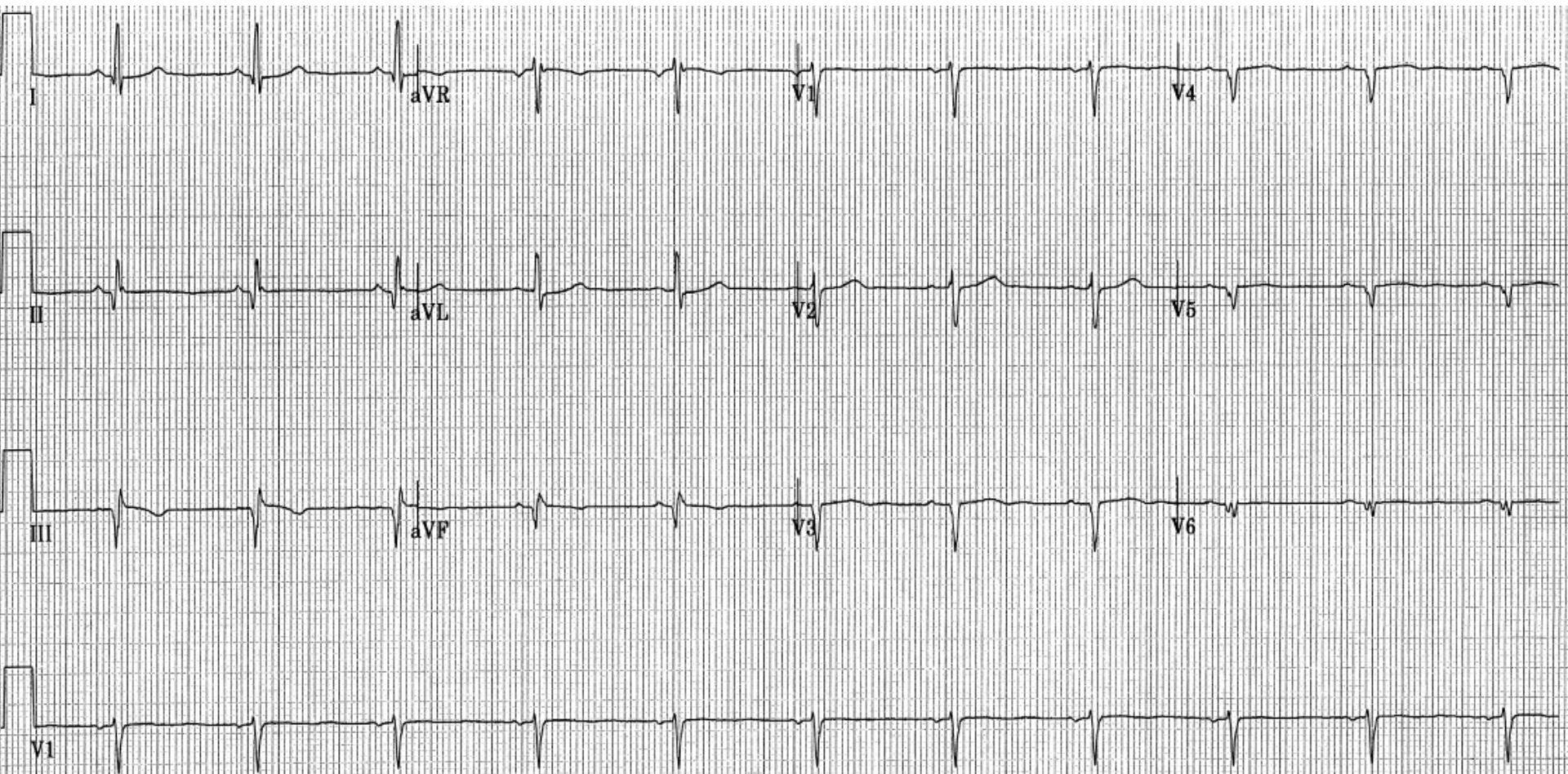
*or if present in V1-V3 to the right of the transition zone, regardless of how small it is.



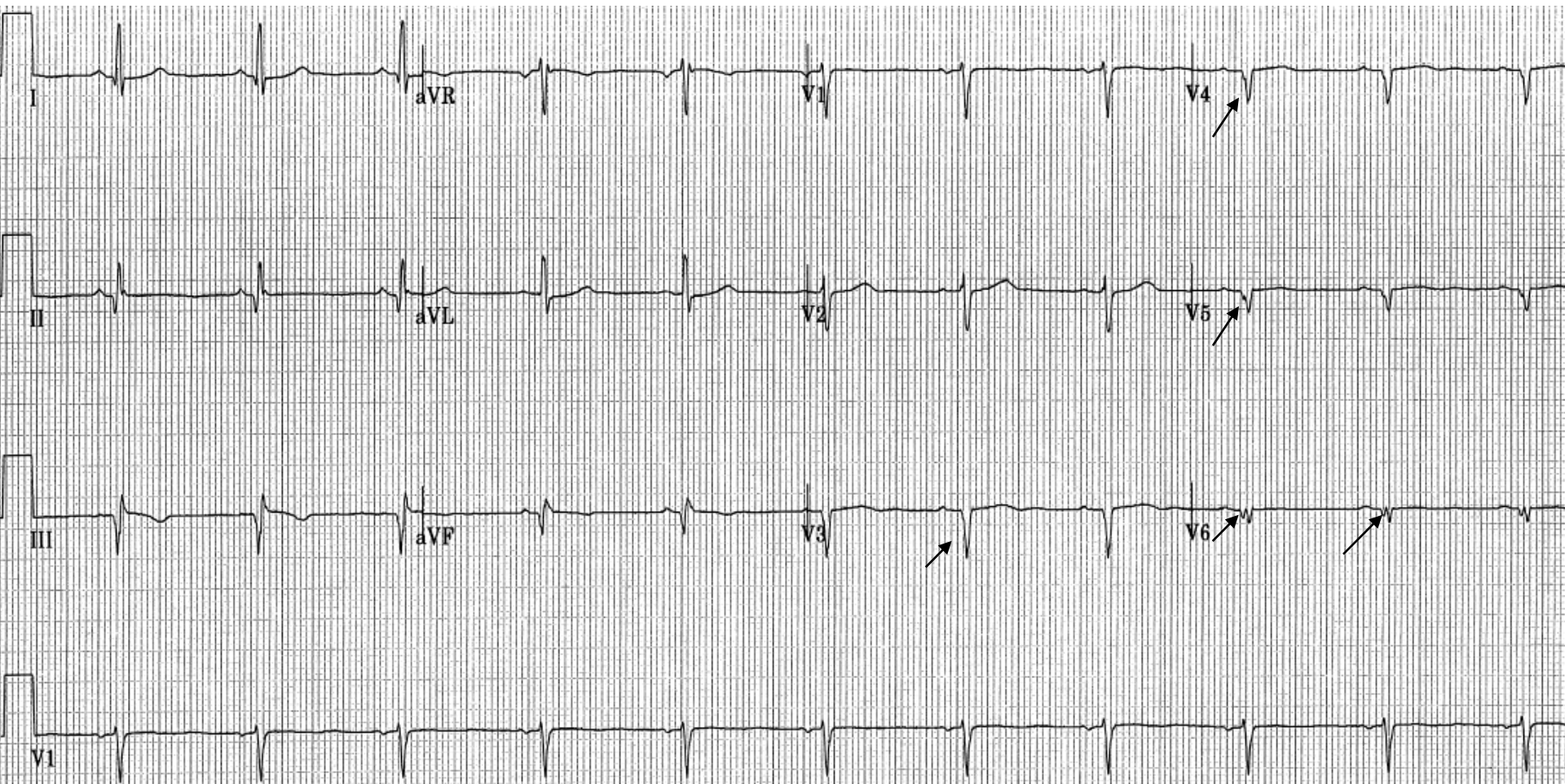
Exception: Wide Q may be seen in leads III or aVL in an isolated fashion



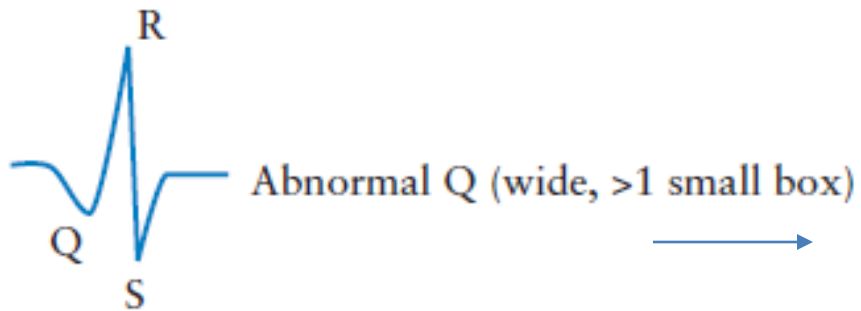
QS pattern is abnormal in all leads except III, and leads V1 +/- V2



ECG 3



Inferior Q and anterolateral QS pattern (wide monophasic Q, *arrows*).
QS in leads V1-V2 may be normal, but not in V3-V6

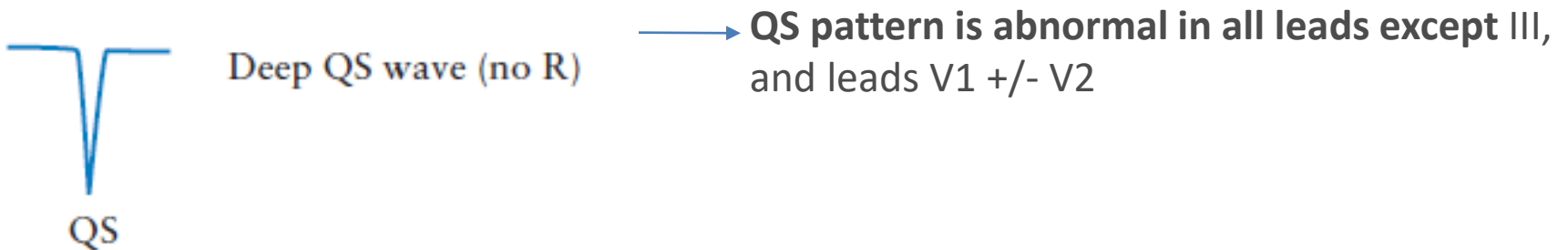
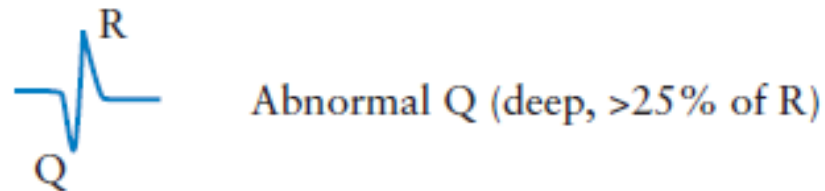


Q wave that is part of a QR or QRS complex is abnormal if:

*wide > 1 small box

*or if present in V1-V3 to the right of the transition zone, regardless of how small it is.

Exception: Wide Q may be seen in leads III or aVL in an isolated fashion



V1

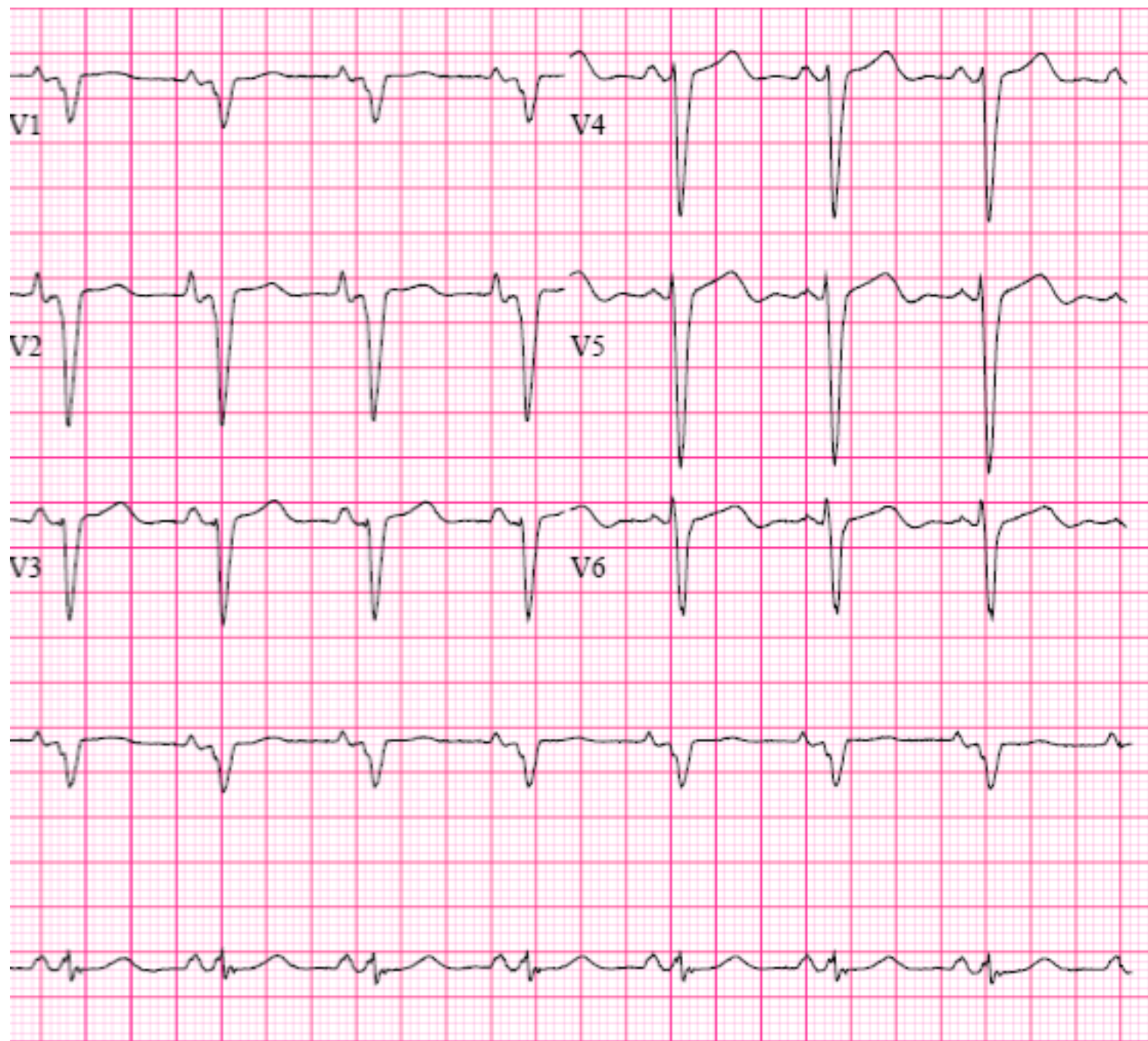
V4

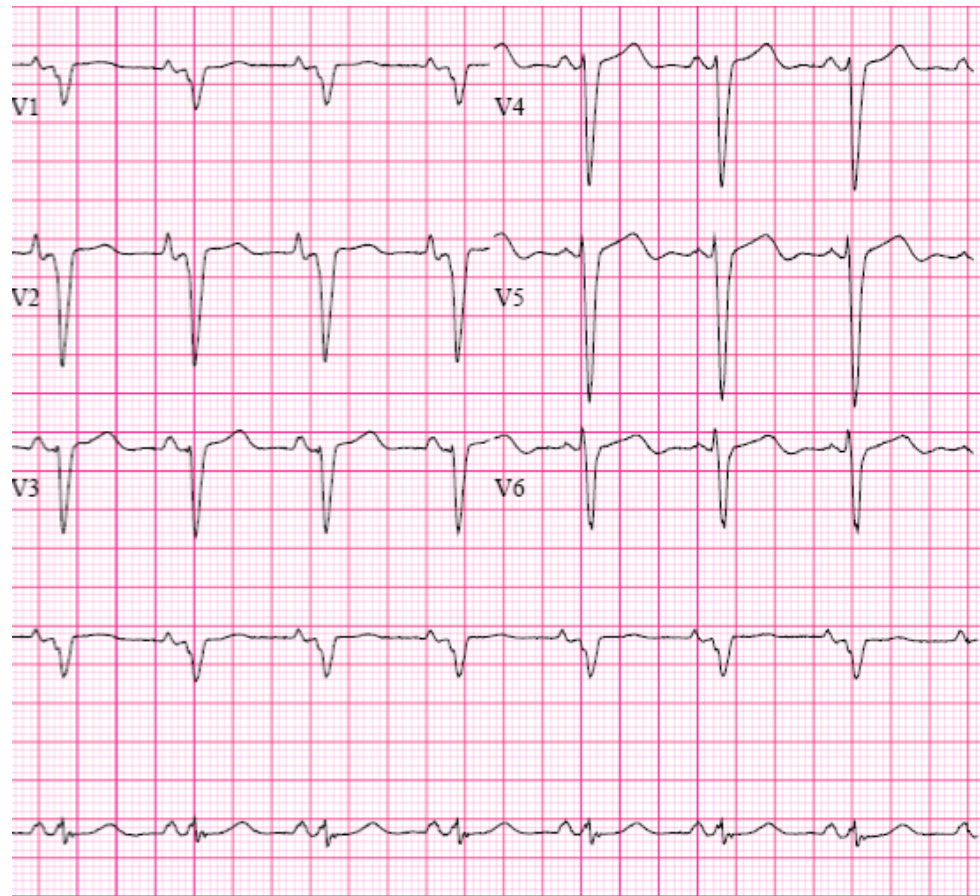
V2

V5

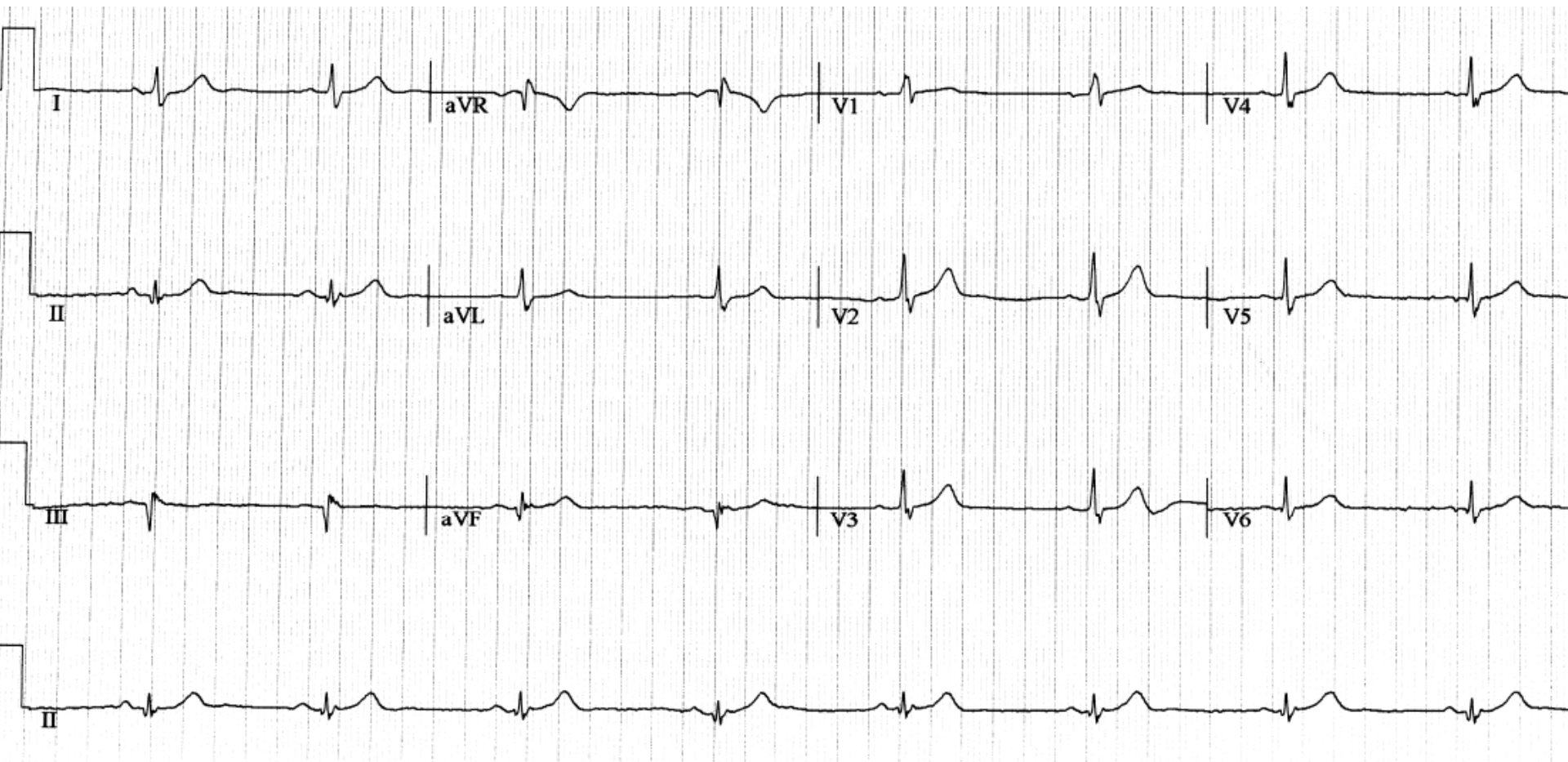
V3

V6

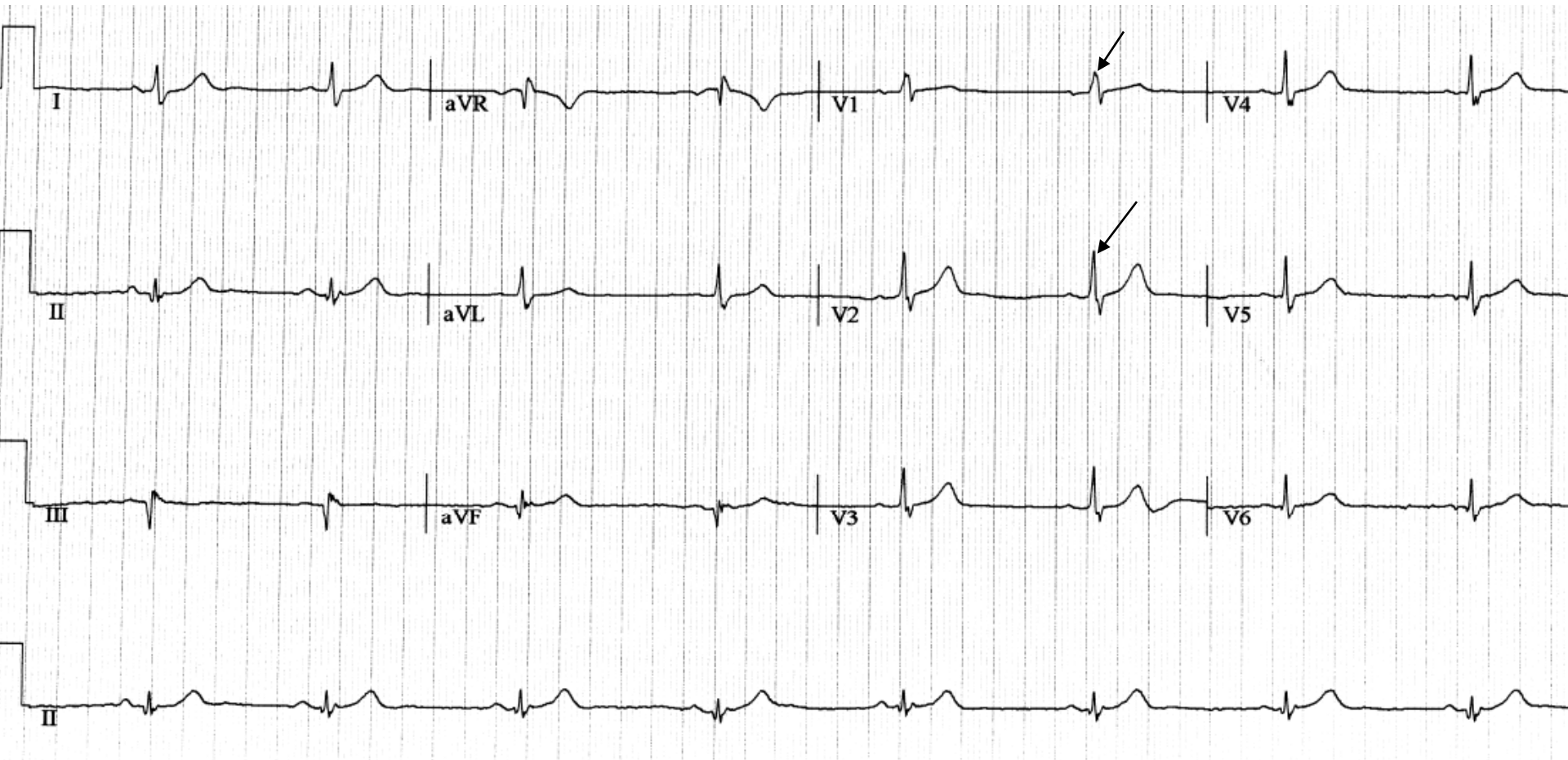




On this ECG, QS is seen in V1-V2, small R wave is seen in V3-V6: as opposed to QS extending to V3 or beyond, QS limited to V1 or V2 is not definitely an anterior MI. Only 20% of pts with QS in V1-V2 without other abnormalities on the ECG have anterior MI.



ECG 4



Inferior and posterior MI. Wide (> 1 small box) $\pm$ tall R in V1 or V2 is indicative of posterior Q-wave MI

Summary:

Abnormal Q=

- *Q wider > 1 box (0.04 sec) and deeper > 1 box in 2 contiguous leads

- *Q of any width before the precordial transition zone (i.e., V1-V3)

- *Q may have a QS shape, which is a very wide and deep Q wave usually indicative of MI, except in leads III or V1 +/-V2 where it may be represent a normal variant

- *Wide +/- tall R in V1 or V2 indicates posterior MI